

Cultural Resources Management

CRM Bulletin

A National Park Service Technical Bulletin

Vol. 1, No. 4
December 1978

CULTURAL, AND HISTORIC SITES ARE ENVIRONMENTAL EDUCATION

by **Raymond Breun**

Since Rousseau's First Discourse, the relationship between nature and civilization has been viewed as one of mortal conflict. What we now term the "built" environment or the "historic" environment has been labeled artificial, i.e., unnatural, the inference being that products of civilization, especially modern civilization, are destructively unnatural. Environmental education seeks to speak to the balance of nature, and in its best form, includes men and their civilization as part of that balance. A historic or cultural site, consistent with good environmental education, is by definition a "natural" for environmental awareness.

Cultural and historic resources are paradigms of natural relationships. They demonstrate both the horizontal and vertical aspects of any natural ecosystem. The vertical dimension of the "built" environment reveals the systematic interactions of its component parts over time. This includes strands dealing with landscape, materials, energy relationships, human aspirations and endeavors, value judgments on success or lack of success, and clarifications of types of significance. The horizontal dimension is the current environment. What results the current environment has on a historic or cultural site is answered in great part by how that site affects the environment. These are educational considerations, not in a "classroom" sense, but in a "resource" sense.

Professional educators refer to cultural resources or historic sites, museums in particular, as non-traditional educational agencies. Research in learning at museums suggests these institutions can significantly influence the roots and sources of environmental attitudes, general values, and personal beliefs better than schools. Environmental education in schools is fact-oriented, not concept-oriented. Rather than duplicate this format at a historic site, environmental education might concretely display such values as conservation, preservation, and ecosystem stability, and display them to a larger audience. Historic sites by definition are preserved areas conserving a significant quantity or quality substance, though the very act of assigning significance is a value-laden response within an ecosystem. It is for this reason that cultural and historic sites can function as environmental education centers.

Traditional cultural and historic conservation philosophies and practices are sound analogues for environmental education. These vertical dimensions of sites help to justify the horizontal contemporary Activities. Values and justifications for decisions regarding Any cultural or historic site rest on global realities, especially when these sites are concerned with American history. One of the major concerns of environmental education is quality knowledge for quality decision making over the long term. What more dramatic example is there than the very nature of cultural and historic sites. In a sense, nothing is more natural.

Environmental learning at a historic site should begin with the roots of the site—its very significance and how it came about. Very often, as in the case of St. Louis, a site's reason for existence is intrinsically related to the shape of the landscape and its water resources. As such, environmental learning at the site should take into account the historic valuation process which first resulted in the preservation of spite space and buildings—a procedure which includes methods and justifications for conservation, energy use, and responsible planning. Such learning events involve pre-site packages, on-site programs designed for various ages or groups, and evaluative follow-up activities to refocus programs as needs change.

Pre-site packages are best if they are visually useful. One with 20 slides and a 24-page handbook are the group leader in an attractive folder can be produced for less than \$3.00 each. The important thing to remember is that the pre-site materials should be expendable and reusable. Too often, museums make educational materials that are as expensive as the objects or sites being discussed. Museum educational materials should be just the opposite of the historic materials, i.e., malleable, expendable, and inexpensive. These can be mailed easily to group audiences in a ready to use format. This purpose is three fold: 1) to prepare groups for a visit; 2) to help the historic site staff prepare for groups; and 3) to be used by those who cannot come for visits, but who may wish to learn about the site. The materials and suggested activities in the package should discuss environmental and energy considerations as part of the information about the historic area.

Certainly, the tour or visit program should be discussed in the slide package. This is good marketing, and it helps the tour guide or docent know what the group will be prepared to receive. In short, a good learning program markets its resources by arranging for expectations it can meet. This is particularly significant for environmental education. Methods of conservation, energy use, and environmental responsibility should be part of the package.

Any evaluative practices dealing with environmental education, or any education program at all should involve the group leaders who come to the site. Part of the evaluative procedure comes from the environmental sphere, i.e., what positive and negative features of the education program have helped or hindered adequate preservation, conservation, and energy concerns. How did the education program attempt to add to the environmental awareness of the staff, the visitors, and the group leaders specifically? In a sense, the evaluative elements suggest the goals and objectives of the program. But, it is the methodology, i.e., the marketing and planning format, including the content of the historic and environmental information along with the delivery system, which makes the program integrated.

Conservation and preservation are the means to the integrity of historic sites. The education program likewise should exemplify that integrity. Again, what is more natural than ecosystem integrity? historic sites are historic because they help integrate history and preserve what is valuable. That is environmental learning.

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COLLECTION NEEDS: TODAY AND TOMORROW

by Jackson W. Moore, Jr.

Like most resources of value, collections have a plural constituency. The complexity of constituent identification is reflected in the synonyms for a collection's parts: object, artifact, specimen. Each has a subtly different value individually and collectively. There is

less connotation of function in "object" which permits us to use it for both "artifact" and "specimen." The resource can be addressed collectively (collections) or individually (objects). Either way, they pose three management problems: conservation, curation, and use.

The object is accorded its highest status when used as an exhibit. In this role, it is an artifact. It is generally one of the best of its kind available, since it is for public viewing and helps to tell a story. The best available is kept properly in protective seclusion. An artifact never loses its potential value as a reference or study specimen, although such use does not require an object to be of showpiece quality. Objects d'art are primarily of exhibit value, unless a particular facet of a culture is being researched. The constituents of this class of object usually blanch at synonyms such as artifact or specimen.

When the object is treated, not individually but as a part of a group, it can still be on exhibit, helping to illustrate a theme or to tell a story. It can also be available for reference or research, on the shelf or in the laboratory. In either situation, it requires certain "care-and-feeding." The object on exhibits much more likely to have received post-stabilization curatorial treatment, and is also far more likely to have been kept in a controlled ambiance. It is unfortunate that broken, flawed, and redundant specimens, which are just as subject to infestation and deterioration as exhibitable artifacts, present a much more difficult maintenance program.

A collection may be composed of numerous objects with little or nothing in common, and would be useful only to illustrate a concept. However, to be of value, either interpretively or through research, all of the objects should stand in some relationship to each other, with an exception to be addressed later. Whereas the single object, on exhibit or in the cabinet, represents an activity within a process, a group of them can illustrate a process, or represent a facet of a culture. The semantic problem of differentiating a "group" of objects placed together from a "collection" may be avoided on the basis of function and duration. It is not a collection if a number of objects are assembled temporarily for comparison, whether for exhibit or research purposes. An advantage of a collection over single objects is that, for both exhibit and research purposes, a broader spectrum of a culture or a process can be dealt with in greater depth. Depending on the size of the collection and the facilities, the collection itself can be "an" exhibit.

A third class of material, with the least status, is "bulk." The traditional approach to bulk materials has been a rough-and-ready one, i.e., count it, weigh it, integrate the data into the statistics of the total study, and discard it. If part of the bulk is not so much broken, flawed, or remnant pieces as merely redundant objects, then they may be exchanged or donated. It still comes down to a "culling" process. Perhaps the value of bulk is presently underestimated. Like all cultural material, old bulk isn't being made any more. (Contemporary material that is still being made will, in time, contribute to tomorrow's artifacts, etc., but let's not preempt tomorrow's scholars.) Further, many collections are from a site or structure which is on the National Register for Historic Places or eligible for nomination. As such, they are a part of the fabric of that site or structure. It can be pointed out that, for pragmatic purposes, the handling of bulk material should not come under Section 106 review; in fact, it would presently overwhelm the National Register staff (they say) if prime objects were placed on the National Register. The fact is that bulk is under estimated and under-utilized, and hence, under-protected. Let us turn to the Bertrand for an analogy.

The sternwheeler Bertrand was a steam-powered river boat which sank in the Missouri River some 35 miles off Omaha, on April 1, 1865. Between 1967 and 1970, private salvors under a GSA permit archeologically retrieved the cargo, an excellent cross-section of the material culture of 1865 America as expressed by the Missouri River trade. Of approximately 2,000,000 objects, all but some 40,000 were classified as bulk. This bulk, however, included not only remnant textiles, glass, metals, wood, etc., but decking, machinery, scores of redundant lamps, plows, shoes, boots, hats, garments, etc. All required stabilization/conservation, and curation, as well as study. Because of funding priorities, emergency funds could only be obtained for initial treatment of the prime specimens. Over a half-decade later, a second project has begun which will provide for

follow-up conservatorial treatment of the prime artifacts, and full treatment of the bulk. Facilities will be provided for interpretive exhibits, curation, research, and controlled-ambiance storage. Almost a decade of observation and experience indicates that the bulk is the most impressive exhibit of all. Rather than being stacked in storage cabinets, the Fish and Wildlife service now is planning to place the hulk in visible storage rooms which have transparent walls, and are, in effect, room size exhibit cases. If these plans are carried out, it will mean changing the commonality of the collections from function, form, or provenance, to fabric, and grouping objects together on the basis of their required ambiance. In the event that this proposal cannot be implemented during this period in our history, the bulk material will be placed in traditional storage cabinets, but ambiance according to fabric will still be provided. Although the cargo is now located apart from the Bertrand's hull (the boat was reinundated), both the earlier and current projects have complied fully with Section 106 and 36 C.F.R., Part 800.

There are, and have been, dry-land mini-Bertrands across the land in the form of archeological sites. While treatment and storage, especially for bulk, have never been available to the extent desired, a pragmatic adjustment to available funds and space was made by the Procrustean device of "count-and toss." This is no longer justifiable, particularly for park collections. Collections and objects must now be addressed in the context of historic preservation legislation, regulations, and policies. To do this effectively will require aggressive programming and advance planning based on solid justifications for additional conservatorial and curatorial positions, and much greater controlled-ambiance storage than many managers can presently conceive.

Filling the conservator positions will require some lead time. Once the demand is established, trained candidates will appear.

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TECHNICAL LITERATURE FOR THE REPAIR AND MAINTENANCE OF HISTORIC STRUCTURES

by Hugh C. Miller, AIA

A how-to-do-it manual or a technical handbook can be of great assistance to both the neophyte trades apprentice and the experienced professional as a source of information or reference. However, how-to-do-it books and manuals can deal only with specifically defined cases or broad generalities, and may not be useful for solving technical problems found in the preservation, repair and maintenance of historic structures. there is such a dearth of technical structures preservation.

The practitioner must pick carefully among the existing publications to find explanations for the weathering and deterioration of materials, and their appropriate repair and replacement especially the preservation of building materials or existing fabric. The matching of new elements for workmanship, color, etc. are critical factors.

Available literature can be broken down into "yes," "no," and "maybe" sources. And, those categories should have the underlining caveat of "Just because it is in print doesn't mean it's so." Furthermore, it is the responsibility of the preservationist to ask, "If it is so, does it really apply to my buildings?"

A useful set of publications under the "yes" category is that produced by the Technical Preservation Service division (TPS), Office of Archeology and Historic Preservation, Heritage Conservation and Recreation Service, Department of the Interior, Washington, D.C. 20243. Topics range from technical papers on exterior cleaning of masonry buildings and x-ray examination of historic structures to rectified photography and photo drawings for historic preservation, as well as a collection of Preservation Briefs on a variety of subjects. Booklets such as Techniques for Use of Epoxies in Wood Repair, and Cyclical Maintenance for Historic Buildings are TPS publications available from the U.S. Government Printing Office. A publication list is available from TPS.

Another publication in the "yes" category, the Army Department's Technical Manual 5-801-2, Historic Preservation and Maintenance Procedures, while not an exhaustive report, points out many of the pitfalls in maintaining historic structures. This manual is available from the Department of the Army AG Publications Center, 1655 Woodson Road, St. Louis, Missouri 63114.

The Department of Agriculture, in its Home and Garden Bulletin No. 212 (s.35), or New Life for Old Dwellings, Agriculture Handbook No. 481 (s1.70) of the Forest Products Laboratory, offers technical guidance on wood utilization. While these pamphlets are generally for new construction, some publications are relevant to maintenance, particularly the series on insects and rot, and the bulletins on lox structures. A complete list of publications is available from the Superintendent of Documents, U.S. Government Printing Office, or from the Forest Products Laboratory.

While the above-mentioned publications from the Agriculture Department are good references, the reader is warned to stay away from some of the worst booklets in the preservation and maintenance field, also produced by these same people. They all are anti-architectural in concept. The authors approach alterations to old buildings as short cuts that do not preserve the structures' architectural character. The major body of this work is a reprinting of an old Department of Commerce manual on light wooden buildings. For general material on modern framing and finishing practices, there are better publications from the trade manuals, such as the series published by the American Technical Society, 5608 Stong Island Avenue, Chicago, IL 60637.

Other reference sources include the publications of the Association for Preservation Technology (APT), particularly articles in the Bulletin, and Publications Supplements

(P.S.) on methods of reproducing under moldings, technology for paint investigation, and sources of supply and materials. Current publications are sent to members of APT. All parks with major architectural resources should subscribe to these publications for their reference libraries. For information regarding purchase of individual items or subscribing fees, contact the Executive Secretary, Association for Preservation Technology, Box 2487 Station n, Ottawa, Ontario, Canada, RIP 5W6.

The American Association of State and Local History (AASLH) publishes bulletins and books that fall into the "yes" and "maybe" category. The technical leaflet by Henry Judd "Before Restoration Begins- Keeping Your Historic House Intact" should be read and understood by everyone concerned with architectural preservation. However, Lee Nelson's "Nail Chronology" only applies in certain periods and areas of the United States. In the West, it is possible to find the dating technique totally useless. AASLH is located at 1400 5th Avenue South, Nashville, Tennessee 37203.

Another periodical with basic articles that may be useful to describe state-of-the-art techniques is *Technology and Conservation* published by the Technology Organization, Incorporated, 1 Emerson Place, Boston, Massachusetts 02114. This publication is available free of charge to people concerned with historic preservation programs.

The *Old House Journal*, located at 191 Berkely Place, Brooklyn, New York 11217 is a monthly newsletter that falls in the "maybe" and "no" categories. The articles tend to be an-old-house do-it-yourself version of "Popular Mechanics" for Saturday afternoon projects that may or may not be appropriate to the historic structure. One homeowner's solution to peeling paint, i.e., removing the paint and coating the siding with crank case oil and turpentine, not only makes a combustible building flammable, but masks the original problem of the peeling paint—probably excessive moisture.

Also falling in the "maybe" and "no" category is literature from manufacturers of various products used in construction and maintenance. Since this literature is pure and simple advertising, sometimes infused with technical information, it tends to be biased, extolling only the good aspects of the product's performance without adequate reference to its faults or limitations. The fact that this type of literature may show a product's use on Independence Hall or some other similar historical landmark does not mean that it was appropriate for that application, or that it may be appropriate to solve your particular problems.

Where the Bureau of Standards has conducted tests on materials, you may evaluate the performance in accordance with the NPS criteria. However, you should be careful that the criteria tested are applicable to the problems at hand and that other aspects of the material performance required for evaluation have also been tested. For example, in recent tests on waterproofing materials, it is assumed that a good product does not allow efflorescence of the salts. However, field tests indicate that where salts are present, and efflorescence does not occur, crystallization below the surface (efflorescence) may actually cause the face of masonry to spawl.

The Preservation Press of the National Trust for Historic Preservation publishes frequently on matters related to historic preservation, but it is very limited literature on technical matters. Two publications of note are the standard reference book, Principles and Practices of Conservation edited by Sharon Timmons, and Early American Masonry by Harley J. McKee. Both these books and a catalog of other publications are available from the Preservation Shops, 740 Jackson Place, Washington, D.C. 20006.

Books of note include The Restoration Manual by Orin M. Bullock, Jr., published by Silvermines Publishers, Inc., Norwalk, Connecticut. While it dwells on the process of restoration, primarily in colonial and early American prototypes, it is applicable to the restoration process as a procedure. Two British books are particularly useful. The Care of Old Buildings Today by Donald W. Insall, published by the Architectural Press in London; and The Repair and Maintenance of Houses by Ian A. London are sound texts for understanding the problems of material and structural deterioration.

Other books that maybe useful are in construction manuals, and trades and crafts manuals that deal with the building process. References to particular materials such as chemical materials for construction, uses of masonry, concrete, steel, glass, etc., may be helpful. Most of these books, however, have been written for new construction and have limited application to the maintenance process and to preservation of historic structures.

While it is possible to establish a working library of references, you should remember that the problem at hand is probably not discussed in a manual. Its solution needs to be thought out based upon a full understanding of how materials function, their interrelationship with the building, and how you might be able to retard deterioration or to replace the material. The warning that "just because it is in print, doesn't mean it's so" is primarily applicable to any pat solution offered in an article or reference book. Most of the problems related to the maintenance of structures can be solved in straightforward mechanical solutions typical to the appropriate building trades without attempting to find shortcuts or sure cures in the process.

If you are unsure about courses of action to take, consult your Regional Historical Architect or the Division of Historical Architecture in the Washington Office for advice and assistance.

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MRS. FRANKLIN'S HOUSE

by Mary Maruca

"A house without woman and firelight is like a body without a soul." Poor Richard

Offered a night at the Park Service's version of Debbie Franklin's house, would you take it? Probably not, unless you were used to living without certain things--such as walls. Nevertheless, an afternoon at the house and underground visitor's center might well uncover some interesting Philadelphia history for you. Within easy walking distance from Independence Hall and the Liberty Bell Pavilion, Franklin court stands as a tribute to the Philadelphia Mr. and Mrs. Franklin knew.

The Franklin Court House may have been in Ben Franklin's name, but emotionally it belonged to Debbie. Brick by brick, from ice pit to chimney, Rile made her house grow. And why not? Just talking about it, planning it with Franklin, even through the clumsy inadequacies of the postal system, made her feel closer to him. Franklin oversaw the construction of their house from ground breaking to laying the foundations and raising the walls until his pre-Revolutionary War commitments took him to England. When he left in 1776, Debbie stayed home to nurse their skeletal mansion. Hers was a love triangle shared between herself, Ben, and their house, a project holding them together across ten years and two continents.

Contrary to his wish that she be eased "of any Trouble that might arise in carrying on the Building," Debbie took over the construction accounts. Many times, her letters burst forth with some new tidbit about the house, something distance forced her to say on paper and not in the great man's ear. "I am getting the lore parte of the house clenod ought readey for the laying the kitching flore... I partake of none of the diversshons I stay at home and flatter myselef that the next packet will bring me a letter from your." (The spelling is Mrs. Franklin's.) She bubbled over with the smallest details: the dimensions of the house, the way it graced its nook of property, the interior decorative touches certain to please a man far from his own hearth fire.

Franklin's curiosity resulted in an intricately detailed status report from Debbie, October 1765: "I took all the dead letters and papers that was in the Garrot and put them into boxes barrels and bages as I did not know in what maner you wold have shelves in your room." Fully detailed accounts of her domestic affairs -- the carpenter's arrival to put up carved work, the absence of doors in the north room, the number of window panes in each door -- each minuscule development in the construction of their house was brought to Benjamin's attention at this time.

Franklin praised her purchase of a lot on the courtyard's east side which widened the house lot to 99 feet: "I think you have done very well to buy the Lot you mention tho' you have indeed given a great Price for it..." One can imagine the quiet pride with which Debbie returned the compliment: "I am very glad that you doe approve of my purchous and when it shall pleas God to restore you to your one [own]house I think you will be very much plesd at the look of it..." To complete the picture, she enjoined her brother to draw up a draft of house and lot, a box-like representation, one of the first clues unearthed by Park Service researchers doing advance work on the Franklin Court project.

Slowly the house went up, and slowly it turned into a home, with married daughter, Sally, filling some of Debbie's need for companionship. Mrs. Franklin delighted in answering her husband's questions regarding the family's living arrangements: "Salley has the South room [up] two pairs of Stairs... In the frunte room which I had desind for gests I had the beed which you sente from England." Debbie was particularly careful in describing Ben's room: "Now for the room we Cale yours thair is in it your Deske the armonekey maid like a Deske, [a musical instrument invented by Franklin] a large cheste withall the writeings that was in your room down stairs...and the pickters as I donte drive nailes leste it shold not be write." What a treasure trove of insight notes like this gave Franklin...and, years later, the architects working on the Franklin Court restoration project. Without Debbie's momentary glimpses through the door of her meticulously kept house, historians would be missing significant details of how the house went up.

Whenever the grueling work of building hit a snag, Deborah longed a little for her absent husband: "there is graite odes [odds]between a mans being at home and a broad as every bodey is a fraid they shall doe wrong so every thing is lefte undun." Clearly, Debbie wanted someone to lean on; and clearly, Franklin wasn't there. So while the manshe was "saving all her finery for" won the verbal wars of Europe, Debbie's determination faltered. After years of waiting on promises, she confided that she never expected "to see [Ben] unless [he] returned this winter [1774]." A stroke ended Debbie's patient waiting in December 1774. Franklin arrived in May, only months after the funeral.

Debbie left Franklin with a fully outfitted house and an able daughter to shepherd him through his first days of readjustment. Franklin's three-story home became his favorite retreat, and when the noise of Sally's family disturbed him during the last busy years before his death, he built an additional wing, 16 1/2 feet wide by 33 feet long, to insure his privacy. Manasseh Culter, a Franklin visitor during this period, poignantly described him as "a short, fat, trunched old man, in a plain Quaker dress, bald pate, and short white locks," still capable of dominating an audience with his sparkling conversation. Had she seen him, Debbie Franklin would have been proud of her husband, and particularly proud of their house, an island of security in a bustling urban setting.

But for all the art and love expended on its construction, the Franklin home could not withstand its own aging. In 1812, long after Franklin's death, the wreckers came. Franklin's house went down. A new roadway went through and there was silence until the 1950's when Park Service archeological excavations gradually laid bare the foundations and cellar of the original structure. Research poured in. As it did, a new conflict arose — whether or not to build the Franklin house a second time.

As it turned out, a structure was built — but not as Franklin's had been, "contrived to [his]mind," and certainly not with all the comforts of home. There were too many gaps in the research; too many unknowns such as ceiling heights, chimney size, type of wainscoting, color of paint; too much risk of inaccuracy to make rebuilding the structure a

viable plan. So, almost 200 years after Deborah Franklin's death, the Park Service struck out against prevailing historical reconstruction practices.

Instead of a cozy but inaccurate rendering of Franklin's 18th century home, an imaginative, airy house without walls commemorates the original structure. This 3-D steel outline, now open to the public, delineates how much space the original building occupied. The first-floor plan of the house, discovered on the back of a receipt from a Franklin creditor, forms the base, with viewing shafts descending down into the original foundations. Excerpts from Ben and Debbie's correspondence are inscribed in the pavement. The visitor sees as Franklin once saw, through the intensity of their communication.

When the Park Service chose reinterpretation above reconstruction, it fittingly determined to leave Franklin's original house a house of the mind's eye only. The present framework merely serves as a place marker, pinpointing Ben and Debbie's life together. Of a similar nature are the restored houses Franklin once owned along Market Street and the equally important print shop he built for Benjamin Franklin Bache, his grandson. These place markers within Franklin Court help to solidify its historical contributions, and to bring details crowding back. The visitor remembers the kitchen gadgets Franklin worried about, Debbie's agonies over the Blue Room, and her impatience with the carpenters -- all very tangible details. Nevertheless, what Debbie and Ben really shared was an intangible house, a house built through correspondence.

This house of the mind was indeed more solid than the brick of the original structure. By 1812, the brick was gone. Not so the image in the mind. It is this image which is the gift of Franklin Court. Who needs firelight and a woman when imagination does it better?